

StrataBlock™



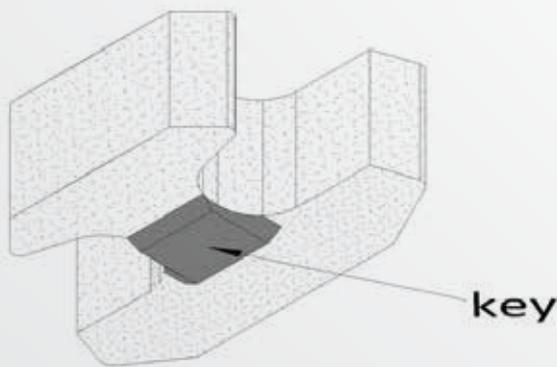
StrataBlock™

Modular precast concrete block fascia
for a reinforced soil structure

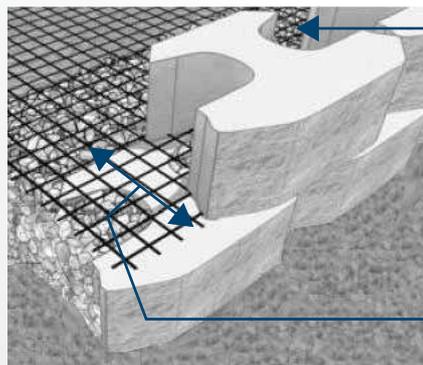


StrataBlock™ is a modular precast concrete block fascia for a reinforced soil structure. The reinforced soil structure is a mass of non-plastic soil which is reinforced with StrataGrid™ geogrids. The concrete used is plain cement concrete of M30 grade which gives high durability.

Connection with StrataGrid™ geogrids is simple and requires no skilled manpower. The concrete is dry-cast which is long-lasting. The block dimensions are 457 mm (width), 203 mm (height) and 302 mm (depth); because of its size and modularity provides a flexible fascia to the reinforced soil wall structure.



16mm shear key for StrataGrid™ connection



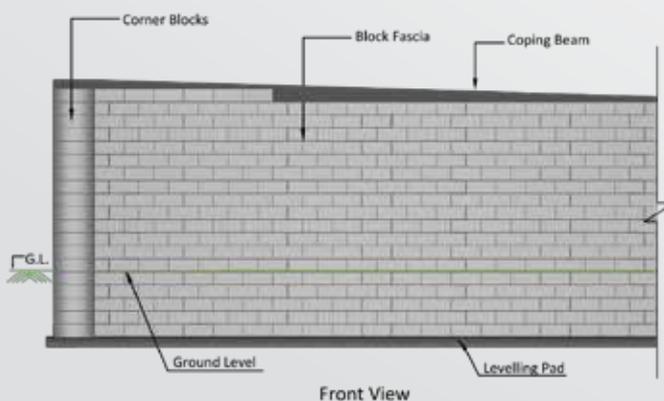
Stone columns within StrataBlock™

Staggered hollows filled with gravel become integral part of fascia, contributing support and stability to the fascia

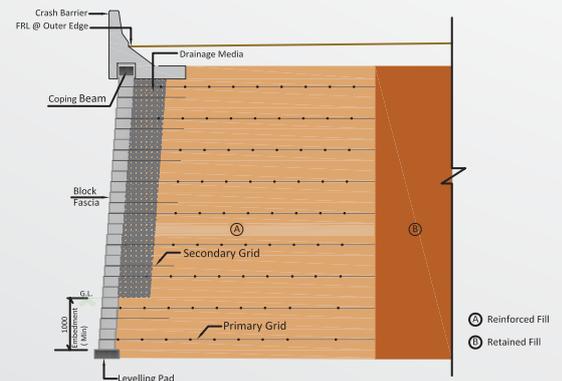
Hollow seat for the key

The main purpose of shear key is to provide interlocking between two rows of StrataBlock™ and to provide positive connection to StrataGrid™. This proves to make the structure even more stable.

The shear key also ensures constant batter at 15mm for each row (203 mm height).



Schematic diagram of RS Wall with precast concrete StrataBlock™ fascia



Schematic diagram of typical cross section of reinforcement soil (RS) wall

Reinforced soil walls with StrataBlock™ fascia and StrataGrid™ reinforcement are relatively flexible structures. The blocks are placed dry and can tolerate deformations without visible distress at the wall face. Dry stacking also facilitates water to drain through the fascia easily. This, along with vertically staggered hollows filled with aggregates prevents development of any hydrostatic pressure or local pore water pressure.

Each block weighs approximately 40 kg. The size and weight of the modular StrataBlock™

unit permits construction of walls in tight locations with minimal equipment. StrataBlock™ units can be incorporated in walls having sharp curves and corners and can fulfill complex architectural layouts. Shorter secondary geogrids ensures local stability of the fascia. StrataBlock™ along with StrataGrid™ as reinforcing element is a cost effective alternative to steel soil reinforcement or conventional reinforced cement concrete retaining walls.

Highlights

- ▶ StrataBlock™ system enables 100% soil coverage for StrataGrid™ reinforcements
- ▶ Considering that the profile of the blocks is a standard module, block casting can commence immediately on setting up the casting yard even before finalization of drawings
- ▶ Each block weighs about 40 kg and no lifting and placing equipments are required. Manual handling is easy
- ▶ The system in totality can tolerate high differential settlements
- ▶ The shape of the block units lends flexibility to the alignment of reinforced soil wall and fits the wall profile
- ▶ The small height (203 mm) allows the designer the freedom to provide secondary geogrids, the local stability
- ▶ The height of StrataBlock™ also ensures better control on backfill soil layer thickness during construction

Indicative projects





About us

Strata Geosystems is a leader in the geosynthetics market across the globe. It was established in 2004, in partnership with Strata Systems Inc., a subsidiary of the US based textile veteran, Glen Raven. Strata provides end-to-end solutions for soil reinforcement challenges including supply, design, and construction with our world renowned StrataGrid™ (geogrid) and StrataWeb® (geocells). In addition to the ISO and CE mark, the testing for our products is conducted in GAI-LAP accredited labs across the U.S., U.K., and India. We are also a proud member of the International Geotechnical Society (IGS) promoting advancements in geosynthetics.



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